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EXAMINER WENDELL, ANDREW				
ART UNIT 2618		PAPER NUMBER		
NOTIFICATION DATE 06/13/2008		DELIVERY MODE ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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PTONotifications@procopio.com

Office Action Summary

Application No.

10/814,909

Applicant(s)

HODDIE, J. PETER

Examiner

ANDREW WENDELL

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,5,7,8,10-15,17-20 and 22-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5,7,8,10-15,17-20 and 22-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 4-6, 10-11, 16, 19-20, 22, 24, 29-31, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kotzin (US Pat Appl# 2004/0204076) in view of Bahl et al. (US Pat Pub# 2004/0204071) and further in view of Reddy et al. (US Pat Pub# 2004/0127214).

Regarding claim 1, Kotzin's subscriber device for enhancing interfaces thereto teaches a wireless interface 103 (Fig. 1) configured to provide short range and low power interface (Bluetooth, Sections 0014 and 0031) for supporting communication across a wireless connection 109 and 111 (Fig. 1); a first communication interface for providing a medium range wireless interface (Section 0012-0013); a second communication interface for providing a wired interface ("wired interface" to PSTN, Section 0012-0013); and a controller 207 (Fig. 2) connected to the wireless interface 203 and 209 (Fig. 2), the controller supporting the negotiation service and a communication service (Section 0019); wherein the negotiation service provides interface negotiation for using the wireless interface to negotiate with another device to select an appropriate communication interface for communication of data with the another device (Sections 0019-0021), and wherein the communication service provides

control and management of communication with the another device across a connection established using the negotiation service (Sections 0019-0021); and wherein a first connection opened using the negotiation service and the wireless interface is kept open while a second connection opened using the communication service and one of the first communication interface and the second communication interface is open (Section 0017). It is obvious that there is communication of data between the devices since it is part of a network structure and supports services (messages, Sections 0013-0014). However, Kotzin fails to specifically teach a short range interface used for negotiation service, communication of data and separate interface, clearly teaching a first connect is opened at the same time as the second connection, and selecting a direct or indirect connection.

Bahl's wireless capability discovery and protocol negotiation teaches an interface for providing a medium range wireless interface (Wi-Fi, Fig. 3); an interface for communication of data with another device (wireless data session, Section 0013) and wherein the first communication interface is separate interface from the wireless interface used for interface negotiation (Sections 0011-0014); and a second communication interface, wherein a first connection opened using the negotiation service and the wireless interface is kept open while a second connection opened using the communication service and one of the first communication interface and the second communication interface is open (Sections 0014 and 0048-0049).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate communication

of data and separate interface and clearly teach a first connect is opened at the same time as the second connection as taught by Bahl into Kotzin's wireless communication interface in order to provide a new and improved wireless discovery and configuration protocol (Section 0010).

Kotzin and Bahl fail to teach a short range interface used for negotiation service and selecting a direct or indirect connection.

Reddy teaches a wireless interface configured to provide short range and low power interface (WLAN, no clear limits to what is considered short range and low power therefore a WLAN can be considered short range and low power) for supporting communication across a wireless connection used for a negotiation service to select a communication interface (Sections 0020-0021 and 0042), wherein negotiation service selects one of: the first communication interface for direct communication between the wireless device (Sections 0020-0021 and 0042) and the another device, and the second communication interface for indirect communication through a network (Sections 0020-0021 and 0042).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a short range interface used for negotiation service and selecting a direct or indirect connection as taught by Reddy into communication of data and separate interface and clearly teach a first connect is opened at the same time as the second connection as taught by Bahl into Kotzin's wireless communication interface in order to increase service capacity and reduce interference (Section 0043).

Regarding claim 2, the combination including Kotzin teaches wherein the wireless interface supports Bluetooth (Section 0014).

Regarding claim 4, the combination including Bahl teaches wherein a first communication interface supports Wi-Fi (Fig. 3).

Regarding claim 5, the combination including Kotzin teaches wherein each of the wireless interface and the second communication interface support respective types of wireless communication WAN and LAN (Fig. 2 and Sections 0013-0014).

Regarding claim 6, the combination including Kotzin teaches a third communication interface 211 or 223 or 225 (Fig. 2) supporting a wired connection (Section 0013).

Regarding claim 10, the combination including Kotzin teaches wherein the negotiation service provides interface negotiation automatically (Sections 0019-0021).

Regarding claim 11, the combination including Kotzin teaches wherein the negotiation service provides interface negotiation in response to a request by a user (Section 0029).

Regarding claim 13, the combination including Kotzin teaches wherein the negotiation service selects the appropriate communication interface using settings previously provided by a user (Section 0029).

Regarding claim 16, the combination including Kotzin teaches wherein the wireless interface supports an indirect connection to another device using a network (Section 0013 and 0014).

Regarding claim 19, Kotzin teaches configuring a default wireless interface as short range and low-power interface (Bluetooth, Sections 0014 and 0031); searching for a second device using the default wireless interface of a first device (Sections 0019-0021); establishing a negotiation connection between the first device and the second device using the default wireless interface (Sections 0019-0021); negotiating to select an appropriate communication interface for communicating data between the first device and the second device using the negotiation connection (Sections 0019-0021); establishing a communication connection using the selected interface (Sections 0019-0021); communicating data between the first device and the second device using the communication connection (Sections 0019-0021), wherein the negotiation connection is open while the communication connection is open, and information on the negotiation connection is used to determine when to close the communication connection (Section 0017); and closing the communication connection 427 (Fig. 4) when the determination is made. It is obvious that there is communication of data between the devices since it is part of a network structure and supports services (messages, Sections 0013-0014). However, Kotzin fails to specifically teach communication of data and separate interface, the negotiation connection being open while the communication connection is open, a short range connection for negotiation, and selecting between a direct or indirect connection.

Bahl's wireless capability discovery and protocol negotiation teaches an interface for communication of data with another device (wireless data session, Section 0013), wherein the communication interface is separate interface from the default interface

used for interface negotiation (Sections 0011-0014), and wherein the negotiation connection is open while the communication connection is open (Sections 0014 and 0048-0049), and information on the negotiation connection is used to determine when to close the communication connection (Sections 0014 and 0048-0049); and closing the communication connection when the determination is made (Sections 0014 and 0048-0049).

Kotzin and Bahl fail to teach a short range connection for negotiation and selecting a direct or indirect connection.

Reddy teaches wherein the short range and lower power interface provides reliable signal and reduced power consumption (WLAN, no clear limits to what is considered short range and low power therefore a WLAN can be considered short range and low power) for the negotiation connection (Sections 0020-0021 and 0042); selecting an appropriate communication interface includes selecting one of: the first communication interface for direct communication between the wireless device (Sections 0020-0021 and 0042) and the another device, and the second communication interface for indirect communication through a network (Sections 0020-0021 and 0042).

Regarding claim 20, the combination including Kotzin teaches further comprising searching for the second device using a secondary interface 209 (Fig. 2).

Regarding claim 22, the combination including Kotzin teaches wherein negotiating to select an appropriate communication interface includes determining one or more available interfaces (Sections 0019-0021); determining one or more compatible interfaces from among the one or more available interfaces (Sections 0019-0021); and

selecting one of the one or more compatible interfaces as the communication interface using one or more communication criteria (Sections 0019-0021).

Regarding claim 24, the combination including Kotzin teaches wherein negotiating to select an appropriate communication interface also includes selecting a communication mode (Sections 0019-0021).

Regarding claim 29, Kotzin teaches means for configuring a default wireless interface as short range and low-power interface (Bluetooth, Sections 0014 and 0031); means searching for a second device using a default wireless interface of a first device (Sections 0019-0021); means for establishing a negotiation connection between the first device and the second device using the default wireless interface (Sections 0019-0021); means for negotiating to select an appropriate communication interface for communicating data between the first device and the second device using the negotiation connection (Sections 0019-0021); establishing a communication connection using the selected interface (Sections 0019-0021); means for communicating data between the first device and the second device using the communication connection (Sections 0019-0021), wherein the negotiation connection is open while the communication connection is open, and information on the negotiation connection is used to determine when to close the communication connection (Section 0017); and means for closing the communication connection 427 (Fig. 4) when the determination is made. It is obvious that there is communication of data between the devices since it is part of a network structure and supports services (messages, Sections 0013-0014). However, Kotzin fails to specifically teach a short range connection for negotiation,

communication of data and separate interface, the negotiation connection being open while the communication connection is open, and selecting between a direct or indirect connection.

Bahl's wireless capability discovery and protocol negotiation teaches an interface for communication of data with another device (wireless data session, Section 0013), wherein the communication interface is separate interface from the default interface used for interface negotiation (Sections 0011-0014), and wherein the negotiation connection is open while the communication connection is open (Sections 0014 and 0048-0049), and information on the negotiation connection is used to determine when to close the communication connection (Sections 0014 and 0048-0049); and means for closing the communication connection when the determination is made (Sections 0014 and 0048-0049).

Kotzin and Bahl fail to teach a short range connection for negotiation and selecting a direct or indirect connection.

Reddy teaches wherein the short range and low power interface provides reliable signal and reduced power consumption (WLAN, no clear limits to what is considered short range and low power therefore a WLAN can be considered short range and low power) for the negotiation connection (Sections 0020-0021 and 0042); selecting an appropriate communication interface includes selecting one of: the first communication interface for direct communication between the wireless device (Sections 0020-0021 and 0042) and the another device, and the second communication interface for indirect communication through a network (Sections 0020-0021 and 0042).

Regarding claim 31, the combination including Kotzin teaches means for selecting a communication mode (Sections 0019-0021).

Regarding claim 33, Kotzin teaches configure a default wireless interface as short range and low-power interface (Bluetooth, Sections 0014 and 0031); search for a second device using a default wireless interface of a first device (Sections 0019-0021); establish a negotiation connection between the first device and the second device using the default wireless interface (Sections 0019-0021); negotiate to select an appropriate communication interface for communicating data between the first device and the second device using the negotiation connection (Sections 0019-0021); establish a communication connection using the selected interface (Sections 0019-0021); communicate data between the first device and the second device using the communication connection (Sections 0019-0021), wherein the negotiation connection is open while the communication connection is open, and information on the negotiation connection is used to determine when to close the communication connection (Section 0017); and close the communication connection 427 (Fig. 4) when the determination is made. It is obvious that there is communication of data between the devices since it is part of a network structure and supports services (messages, Sections 0013-0014). However, Kotzin fails to specifically teach a short range connection for negotiation, communication of data and separate interface, the negotiation connection being open while the communication connection is open, and selecting between a direct or indirect connection.

Bahl's wireless capability discovery and protocol negotiation teaches an interface for communication of data with another device (wireless data session, Section 0013), wherein the communication interface is separate interface from the default interface used for interface negotiation (Sections 0011-0014), and wherein the negotiation connection is open while the communication connection is open (Sections 0014 and 0048-0049), and information on the negotiation connection is used to determine when to close the communication connection (Sections 0014 and 0048-0049); and close the communication connection when the determination is made (Sections 0014 and 0048-0049).

Kotzin and Bahl fail to teach a short range connection for negotiation and selecting a direct or indirect connection.

Reddy teaches wherein the short range and low power interface provides reliable signal and reduced power consumption (WLAN, no clear limits to what is considered short range and low power therefore a WLAN can be considered short range and low power) for the negotiation connection (Sections 0020-0021 and 0042); selecting an appropriate communication interface includes selecting one of: the first communication interface for direct communication between the wireless device (Sections 0020-0021 and 0042) and the another device, and the second communication interface for indirect communication through a network (Sections 0020-0021 and 0042).

3. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kotzin (US Pat Appl# 2004/0204076) in view of Bahl et al. (US Pat Pub# 2004/0204071) and further in view of Reddy et al. (US Pat Pub# 2004/0127214) as applied to claims 1 and

3 above, and further in view of Janik (US Pat Appl# 2004/0253945).

Regarding claim 7, Kotzin's subscriber device for enhancing interfaces thereto in view of Bahl's wireless capability discovery and protocol negotiation and further in view of Reddy teaches the limitations in claims 1 and 3. Kotzin shows in figure 2 a WAN and LAN interface and it is known that a LAN has a higher data rate than a WAN. However, Kotzin, Reddy, and Bahl fail to teach about a second communication interface providing a higher data rate than the wireless interface.

Janik system for interactivity for thin client devices teaches wherein the appropriate communication interface (LAN) provides a higher data rate than the wireless interface (WAN) (Section 0017).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a second communication interface providing a higher data rate than the wireless interface as taught by Janik into selecting a direct or indirect connection as taught by Reddy into communication of data and separate interface and clearly teach a first connect is opened at the same time as the second connection as taught by Bahl into Kotzin's wireless communication interface in order to optimize set up preferences for varying types of services delivered to devices (Section 0027).

4. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kotzin (US Pat Appl# 2004/0204076) in view of Bahl et al. (US Pat Pub# 2004/0204071) and further in view of Reddy et al. (US Pat Pub# 2004/0127214) as applied to claims 1 and 3 above, and further in view of Moon et al. (US Pat Appl# 2005/0076054).

Regarding claim 8, Kotzin's subscriber device for enhancing interfaces thereto in view of Bahl's wireless capability discovery and protocol negotiation and further in view of Reddy teaches the limitations in claims 1 and 3. Kotzin, Reddy, and Bahl fail to teach a second interface using more power than a wireless interface.

Moon et al. arrangement for autonomous mobile network nodes to organize a wireless mobile network teaches wherein the appropriate communication interface uses more power than a wireless interface (Section 0037).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a second interface using more power than a wireless interface as taught by Moon et al. into selecting a direct or indirect connection as taught by Reddy into communication of data and separate interface and clearly teach a first connect is opened at the same time as the second connection as taught by Bahl into Kotzin's wireless communication interface in order to provide means to switch between communication modes (Sections 0015 and 0016).

5. Claims 12, 14-15, 17-18, 25, 27-28, 32, and 34-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kotzin (US Pat Appl# 2004/0204076) in view of Bahl et al. (US Pat Pub# 2004/0204071) and further in view of Reddy et al. (US Pat Pub# 2004/0127214) and further in view of Shah et al. (US Pat Appl# 2004/0023652).

Regarding claim 12, Kotzin's subscriber device for enhancing interfaces thereto in view of Bahl's wireless capability discovery and protocol negotiation and further in

view of Reddy teaches the limitations in claim 10. Kotzin, Reddy, and Bahl fails to teach a negotiation service selects a communication interface without user input.

Shah et al. wireless personal communicator teaches wherein the negotiation service selects an appropriate communication interface without user input (Sections 0017-0029).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a negotiation service selects a communication interface without user input as taught by Shah et al. into selecting a direct or indirect connection as taught by Reddy into communication of data and separate interface and clearly teach a first connect is opened at the same time as the second connection as taught by Bahl into Kotzin's wireless communication interface in order to switch from one type of network to another with out loss of connectivity (Section 0016).

Regarding claim 14, Shah et al. further teaches wherein the wireless interface supports a direct connection to another device (Section 0023).

Regarding claim 15, the combination including Shah et al. teaches wherein the direct connection is a newly established ad hoc network established with another device (Section 0023).

Regarding claim 17, Kotzin teaches wherein the wireless interface supports receiving a signal from an IEEE802.11b source (Section 0014), and the negotiation service uses the signal to open communication (Sections 0019-0021). Kotzin, Reddy, and Bahl fail to clearly teach a beacon signal.

Shah et al. teaches IEEE802-based systems can share beacon frames (Section 0015).

Regarding claim 18, Kotzin teaches wherein the signal indicates another device as a target device and a target interface, and another device is different from the IEEE802.11b source (Sections 0014 and 0019-0021). Kotzin, Bahl, and Reddy fail to clearly teach a beacon signal.

Shah et al. teaches IEEE802-based systems can share beacon frames (Section 0015).

Regarding claim 25, Shah et al. further teaches wherein: the communication mode indicates whether to use a direct connection between the first device and the second device or an indirect connection between the first device and the second device for the communication connection (Sections 0017-0029).

Regarding claim 27, Kotzin teaches receiving a signal from an IEEE802.11b source at the device (Sections 0014 and 0019-0021); and determining a target device and a target interface using the signal (Sections 0019-0021); wherein the target device is the second device and the target interface is the default interface (Sections 0019-0021). Kotzin, Reddy, and Bahl fail to clearly teach a beacon signal (IEEE802.11b).

Shah et al. teaches IEEE802-based systems can share beacon frames (Section 0015).

Regarding claim 28, Kotzin further teaches wherein the target device is different from the beacon source (Sections 0014 and 0019-0021).

Regarding claim 32, Kotzin teaches means for receiving a signal from an IEEE802.11b source at the device (Sections 0014 and 0019-0021); and means for determining a target device and a target interface using the signal (Sections 0019-0021); wherein the target device is the second device and the target interface is the default interface (Sections 0019-0021). Kotzin, Reddy, and Bahl fail to clearly teach a beacon signal (IEEE802.11b).

Shah et al. teaches IEEE802-based systems can share beacon frames (Section 0015).

Regarding claim 34, Shah further teaches wherein the beacon source broadcasts the beacon signal using a short-range wireless interface, such that the wireless interface configured as short range and low-power interface can receive the beacon signal to be used in the negotiation service (Section 0015).

Regarding claim 35, Shah further teaches wherein the beacon signal includes information indicating a resource and connection information for accessing that resource (Section 0015).

Regarding claim 36, Kotzin further teaches wherein the connection information includes information that indicates a target device, a target interface, and details on how to set up a connection to the target device through the target interface (Sections 0014 and 0019-0021).

Regarding claim 37, Kotzin teaches wherein the signal includes information for multiple resources or connections to indicate that a particular data file can be accessed

through a connection (Sections 0014 and 0019-0021). Kotzin, Reddy, and Bahl fail to clearly teach a beacon signal.

Shah teaches a beacon signal (Section 0015).

Regarding claim 38, Shah further teaches wherein the beacon signal is supplied upon request such that when the wireless device enters the range of the beacon source, the device informs the beacon source of the device's presence and the beacon source sends the beacon signal to the wireless device (Section 0015).

6. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kotzin (US Pat Appl# 2004/0204076) in view of Bahl et al. (US Pat Pub# 2004/0204071) and further in view of Reddy et al. (US Pat Pub# 2004/0127214) and further in view of Carlton et al. (US Pat Appl# 2005/0141450) and in further view of Moon et al. (US Pat Appl# 2005/0076054).

Regarding claim 23, Kotzin's subscriber method for enhancing interfaces thereto in view of Bahl's wireless capability discovery and protocol negotiation and further in view of Reddy teaches the limitations in claim 19. Kotzin teaches a communication criteria (Sections 0019-0021), but it is unclear what parameters have to be met. Kotzin, Reddy and Bahl fail to teach clearly about a communication criteria that includes data rate and power use.

Charlton et al. method for integrating resource allocation between wireless communication systems teaches a communication criteria that includes data rate (Section 0027). Charlton et al., Ishii et al., and Kotzin fail to teach a communication criteria that includes power use.

Moon et al. arrangement for autonomous mobile network nodes to organize a wireless mobile network teaches a communication criteria that includes power use (Section 0037).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a communication criteria that includes data rate as taught by Charlton et al. into a communication criteria that includes power use. as taught by Moon et al. into selecting a direct or indirect connection as taught by Reddy into communication of data and separate interface and clearly teach a first connect is opened at the same time as the second connection as taught by Bahl into Kotzin's wireless communication interface in order to provide means to switch between communication modes (Sections 0015 and 0016).

7. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kotzin (US Pat Appl# 2004/0204076) in view of Bahl et al. (US Pat Pub# 2004/0204071) and further in view of Reddy et al. (US Pat Pub# 2004/0127214) as applied to claims 19, 22, and 24 above, and further in view of Ahonen (US Pat Appl# 2005/0190920).

Regarding claim 26, Kotzin's subscriber device for enhancing interfaces thereto in view of Bahl's wireless capability discovery and protocol negotiation and further in view of Reddy teaches the limitations in claim 19, 22, and 24. Kotzin, Reddy, and Bahl fails to teach an encryption set up in a communication mode.

Ahonen's digital wireless data communication network for arranging end to end encryption teaches wherein the communication mode indicates a type of encryption to use for the communication connection (Sections 0001-0008 and 0028-0030).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate an encryption set up in a communication mode as taught by Ahonen into selecting a direct or indirect connection as taught by Reddy into communication of data and separate interface and clearly teach a first connect is opened at the same time as the second connection as taught by Bahl into Kotzin's wireless communication interface in order to increase security (Section 0021).

Response to Arguments

Applicant's Remarks	Examiner's Response
"Kotzin fails to disclose: (1) configuring a wireless interface to provide short range and low power interface for supporting communication across a wireless connection used for a negotiation service to select a communication interface, wherein the short range and low power interface provides reliable signal and reduced power consumption for negotiation."	In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See <i>In re Keller</i> , 642 F.2d 413, 208 USPQ 871 (CCPA 1981); <i>In re Merck & Co.</i> , 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Kotzin does teach a short range and low power

	interface (Bluetooth, Sections 0014 and 0031). However, Reddy teaches a wireless interface to provide short range and low power interface for supporting communication across a wireless connection used for a negotiation service to select a communication interface.
"Therefore, it is submitted that Bahl also fails to teach, suggest, or disclose having at least three interfaces: a wireless interface supporting communication across a wireless connection; a first communication interface for providing short range wireless interfaces; a second communication interface for providing one of medium range wireless interface and wired interface, wherein the negotiation service selects one of: (1) the first communication interface for direct communication between the wireless device and another device, and (2) the second communication interface for	See above response.

indirect communication through a network."	
"Reddy is merely cited for teaching a negotiation service selecting one communication interface."	The new limitations "a wireless interface configured to provide short range and low power interface for supporting communication across a wireless connection used for a negotiation service to select a communication interface" is broad therefore Reddy teaches this limitation. Reddy teaches a WLAN (which can be considered short range and low power since the claim does not go into further detail [i.e. no range given] what exactly what short range and low power means) that can switch to communicate in another interface (i.e. with a base station for communication).

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANDREW WENDELL whose telephone number is (571)272-0557. The examiner can normally be reached on 7:30-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 571-272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew Wendell/

/Nay A. Maung/

Art Unit: 2618

Examiner, Art Unit 2618

Supervisory Patent Examiner, Art
Unit 2618

6/5/2008